

REMARKS

Claims 1 through 20 are pending in this application. The Applicant appreciates the Examiner's indication of allowance concerning claims 17 through 20.

I. REJECTION OF CLAIMS (35 U.S.C. § 103)

Claims 1-16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Prior Art (Fig. 1) in view of Hansell, III et al. (USPN 5,176,538). The Applicant respectfully traverses.

According to MPEP 706.02(j), the following establishes a *prima facie* case of obviousness under 35 U.S.C. §103:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaack, 947 F.2d 488, 20

USPQ2d 1438 (Fed. Cir. 1991).

A. Hansell and the combination of references fail to teach or suggest *the reinforcement connector connected to said ground portion and supporting the ground of said printed circuit board* where the *printed circuit board provided with a connector to an external system by a connection cable* and *a ground portion formed around said liquid crystal display controller* as mentioned for example in claims 1 and 9 of the present invention.

In the response to the arguments in paper number 5, the Examiner states that the reinforcement connector is used for grounding the printed circuit board (PCB). The Examiner further states that as clearly shown in Figs. 1-3, the reinforcement connector of Hansell comprises spring ground fingers 8, which is an integral part of the ground shield 6, connected to the ground pin 17 of the header 20 of the PCB. Accordingly, the Examiner believes that the reinforcement connector supports the ground of the PCB.

However, Hansell concerns the connection cable structure and not the connector on the printed circuit board. In col. 1, lines 48-51, Hansell states “The present invention relates to a cable connector having a shield with integral spring fingers...”

In column 3, lines 61-66, “...Fig.2..the ground spring finger 8 is shown engaged with the ground pin 17..The signal 19 and ground 17 pins are a part of the header 20 that extends from the

printed circuit board 21.” Therefore, the spring finger 8, which the Examiner corresponds to the reinforcement connector of the present invention, is not part of printed circuit board 21 but part of the cable connector.

On the other hand, in the present invention the reinforcement connector is connected to the ground portion, where the ground portion is formed around the liquid crystal connector while the connector connects to an external system by a connection cable as mentioned in claim 1.

Therefore, if figure 1 of the present application is combined with Hansell, Hansell teaches of the spring finger 8 on the module of the connection cable and not with the ground portion and the printed circuit board of the LCD having the LCD controller. Therefore, Hansell teaches away from the present invention since the present invention has the reinforcement connector connected to the ground portion around the LCD controller instead of being on the connection cable connector module of Hansell.

Furthermore, the distinct element of *reinforcement connector* from a *connector* connected to an external system by a *connection cable* is not taught or suggested by Hansell (or the combination) because the spring ground fingers 8 are within the connector for the connection cable as seen in figure 2 of Hansell. The one to one ratio of the signal to ground lines also further shows this in figure 2 of Hansell.

Moreover, as cited in column 1, lines 20-28 of the reference, Hansell, “Increased demand for higher densities required that these ground and signal contacts be arranged so that they were located closer to one another which resulted in an increase in crosstalk in the connector. Several

alternative arrangements have been developed over the years to address those needs including alternation signal and ground contacts in a linear array which improved cross-talk performance but reduce the signal density of the connector.” Thus, the purpose of the reference invention, Hansell, is to prevent the cross-talk from being increased and the signal density from being reduced by providing an interconnector module. The FIGS. 2, 5, 7, 9, and 10 of the reference invention, Hansell, show the interconnector accommodating both the ground and signal contacts to accomplish the purpose.

However, the reinforcement connector of the present invention comprises only the ground contacts to support the ground of the printed circuit board (refer to claim 1). Correspondingly, the part of the connection cable connected to the reinforcement connector does not have signal pins but ground pins only.

Therefore, the structure of the interconnector of the reference invention, Hansell, is rather comparable to the connector of the present invention, which receives data signals from the external system to the printed circuit board (refer to claim 6), but not the reinforcement connector of the present invention. Accordingly, the reference invention, Hansell, does not reinforce the ground of the printed circuit board.

B. Hansell and therefore the combination fails to teach or suggest *a cover provided in said connector body, opening and closing said housing portion, to fasten said connection cable in said housing portion.*

The Examiner states in paper number 5 that by looking at Fig. 5, it is obvious that the cover has to be opened at first to accept the end of the connection cable in the housing portion and then closed to fasten the connection cable in said housing portion. Otherwise, the Examiner states that the connection cable as well as the ground connection will become loose in said housing portion.

However, the above comments by the Examiner are based on conjecture and not an actual teaching or suggestion by the reference because nowhere in Hansell is there such a teaching or suggestion.

Furthermore, figure 14a and figure 14b contradicts such a statement. In figure 14a and 14b, the front views of the module assemblies are shown and it clearly shows that pins enter the module without any opening or closing of a cover on the module in Hansell.

Furthermore, the connection cables are actually reference 10 as seen in figure 1 of Hansell, which are connected to the module, but there is no teaching of a cover that actually fastens the cable to the housing by opening or closing of the cover. As mentioned in MPEP 706.02(j), “Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both *be found in the prior art* and not based on applicant's disclosure.” (emphasis added). Here, however, the reference Hansell or the combination of references do not make such a teaching or suggestion, but respectfully, the teaching is based on conclusory remarks and conjecture by Examiner which is based on the Applicant's disclosure.

C. The Examiner fails to show a proper motivation to combine the references.

The Examiner in paper number 5 stated that the reason to combine or modify the references was because in this case, USPN 5,176,538 of Hansell is employed for teaching a reinforcement connector having a ground spring finger for engaging a ground portion of a printed circuit board so as to provide the ground to said PCB with reliability and stability.

The first point in MPEP 706.02(j) states that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. According to *Graham v. John Deere Co.*, “When patentability turns on the question of obviousness, the search for and the analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness,” and *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, “a showing of a suggestion, teaching, or motivation to combine the prior art references is an ‘essential component of an obviousness holding.’” “Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability. *In re Dembiczak*, 175 F.3d 994, 50 USPQ.2d 1614 (Fed. Cir. 1999). The showing must be “clear and particular” without broad generalized conclusory statements. *Id.* There must be specific statements showing the scope of the suggestion, teaching, or motivation to combine the prior art references. *Id.* at 1000. There must be an explanation to what specific understanding or technical principle would have suggested the combination of references. *Id.*


Here, however, the Examiner reason for modification or combination is basically “reliability and stability”. Respectfully, “reliability and stability” is however, not clear and particular but is a

generalized conclusory statement that is prohibited by the *Dembiczak* court.

In view of the foregoing amendments and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. If there are any questions, the examiner is asked to contact the applicant's attorney.

No fee is incurred by this Response. Should there be a deficiency in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

Respectfully submitted,



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Folio: P56366
Date: 28 November 2003
I.D.: REB/SS